



## Features

- Servo mount style
- Shaft supported by front and rear precision ball bearings
- Non-standard features and specifications available
- Gangable up to 10 cups

**BOURNS®**

## 6574 - Precision Potentiometer

### Electrical Characteristics<sup>1</sup>

Standard Resistance Range.....	1 K to 100 K ohms
Total Resistance Tolerance.....	±10 %
Independent Linearity.....	±0.25 %
Effective Electrical Angle.....	350 ° ±2 °
End Voltage.....	0.1 % maximum (0.2 % at 2 K ohms, 0.4 % at 1 K ohms)
Output Smoothness.....	0.1 %
Dielectric Withstanding Voltage (MIL-STD-202, Method 301)	
Sea Level.....	1,000 VAC minimum
Power Rating (Voltage Limited By Power Dissipation or 350 VAC, Whichever is Less)	
+70 °C.....	.2 watts
+125 °C.....	0 watt
Insulation Resistance (500 VDC).....	1,000 megohms minimum
Resolution.....	Essentially infinite

### Environmental Characteristics<sup>1</sup>

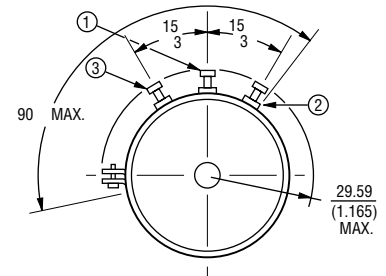
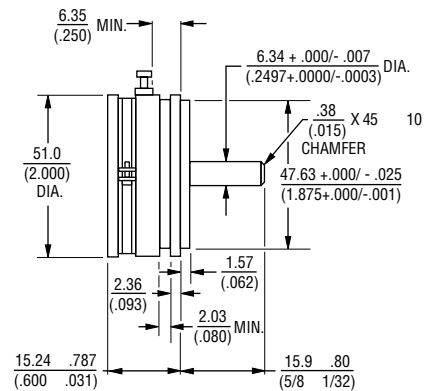
Operating Temperature Range.....	-40 °C to +125 °C
Storage Temperature Range.....	-65 °C to +125 °C
Temperature Coefficient Over Storage Temperature Range.....	±500 ppm/°C maximum
Vibration.....	15 G
Wiper Bounce.....	0.1 millisecond maximum
Total Resistance Shift.....	±2 % maximum
Shock.....	60 G
Wiper Bounce.....	0.1 millisecond maximum
Load Life.....	1,000 hours, 1.5 watts
Total Resistance Shift.....	±10 % maximum
Rotational Life (No Load).....	25,000,000 shaft revolutions
Total Resistance Shift.....	±10 % maximum
Moisture Resistance (MIL-STD-202, Method 103, Condition B)	
Total Resistance Shift.....	±10 % maximum
IP Rating.....	IP 40

### Mechanical Characteristics<sup>1</sup>

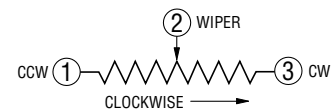
Mechanical Angle.....	Continuous
Torque (Starting & Running).....	0.53 N-cm (0.75 oz.-in.) maximum
Shaft Runout.....	0.025 mm (0.001 in.) T.I.R.
Shaft End Play.....	0.08 mm (0.003 in.) T.I.R.
Shaft Radial Play.....	0.08 mm (0.003 in.) T.I.R.
Pilot Diameter Runout.....	0.025 mm (0.001 in.) T.I.R.
Lateral Runout.....	0.08 mm (0.003 in.) T.I.R.
Backlash.....	0.1 ° maximum
Weight.....	89 gm
Terminals.....	Side exit turret terminals
Soldering Condition	
Manual Soldering.....	96.5Sn/3.0Ag/0.5Cu solid wire or no-clean rosin cored wire 370 °C (700 °F) max. for 3 seconds
Wave Soldering.....	96.5Sn/3.0Ag/0.5Cu solder with no-clean flux 260 °C (500 °F) max. for 5 seconds
Wash processes.....	Not recommended
Marking.....	Manufacturer's name and part number, resistance value and tolerance, linearity tolerance, wiring diagram, and date code.
Gangung (Multiple Section Potentiometers).....	10 cup maximum
Hardware.....	No hardware included

<sup>1</sup>At room ambient: +25 °C nominal and 50 % relative humidity nominal, except as noted.

### Product Dimensions



TOLERANCES: EXCEPT WHERE NOTED  
 DECIMALS: .XX  $\frac{.51}{(.02)}$ , .XXX  $\frac{.13}{(.005)}$   
 FRACTIONS: 1/64  
 DIMENSIONS:  $\frac{MM}{(IN.)}$



### Recommended Part Numbers

Part Number*	Resistance (Ω)
<b>6574S-1-102</b>	<b>1,000</b>
<b>6574S-1-502</b>	<b>5,000</b>
<b>6574S-1-103</b>	<b>10,000</b>

**BOLDFACE LISTINGS ARE IN STOCK AND READILY AVAILABLE THROUGH DISTRIBUTION.**

FOR OTHER OPTIONS CONSULT FACTORY.

REV. 08/10

\*RoHS Directive 2002/95/EC Jan 27 2003 including Annex  
 Specifications are subject to change without notice.  
 Customers should verify actual device performance in their specific applications.